

occupational groups, only within present populations. Any alteration in the complex of social groups would of course invalidate existing standards.

One of the chief concerns of eugenists is to obtain data on the characteristics of different population groups, and it is therefore essential to study the interplay between social and biological heredity. "Heredity and Environment" supplies reliable data on the variation which given psychological traits can undergo in given surroundings. It is unique in the way it groups material, classifying types of research and analyzing results by means of charts, so that their eugenic significance is clearly brought out. The illustrations and indexing are good, and the copious bibliographies render it a valuable reference work. Stimulating suggestions are made for future research, among which are what is termed "intra-group scaling" and the isolation of specific traits by psychological statisticians.

This survey, having been prepared by a psychologist trained in America, deals mainly with American work, but it gives high credit to certain English studies, particularly those carried out by Miss Lawrence on institutional children.* It is understood that in a succeeding volume, shortly to be published, Dr. Frank Lorimer and Mr. Frederick Osborn, the editor of the present work, will deal with actual changes in the American population.

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Taussig, F. W., and Joslyn, C. S.
American Business Leaders: A Study in Social Origins and Social Stratification. London: Macmillan, 1932.
Pp. xiv+319. Price 18s.

NUMEROUS have been the studies of the origin, by social class and occupational status of the fathers, of British men of genius (Ellis), of gifted children in California (Terman), of French literary men (Odin), of the subjects of sketches in *Who's Who in America* (Visser), of German intellectual leaders (Maas). But the origin of American

business leaders has remained obscure. Now a leading American economist and a young sociologist (both of Harvard), in trying to throw light on an economic question—why the wages of management are higher than common wages—have contributed notably to our understanding of a basic problem of eugenical theory: the differential productivity of various social classes in producing leaders of a specific type.

The main conclusion is that 10 per cent. of the population produced, in this representative sample, 70 per cent. of the business leaders. The explanation? With close reasoning and every evidence of objectivity, the authors review the privilege (environmentalistic) and inherent-ability (hereditary) theories, and conclude that the results, taken as a whole, "lend themselves more easily to interpretation in terms of innate differences than in terms of acquired advantages." This is surely modest in view of the strong case they make for the ability theory in the figures presented.

The environmental factors most likely to have created a privileged condition for certain respondents were financial aid, influential connections, and formal education. Careful analysis showed that these factors played only a minor part in determining the level to which the respondents eventually climbed. Only 12 per cent. received financial aid, substantial in amount, during the early stages in their career; only 30 per cent. had formal business training; 25 per cent. had only a grammar school education; 13 per cent. had college training but did not graduate; while 32 per cent. were college graduates (graduation is, of course, a test of innate ability as well as a reflection of economic status). The authors conclude that "help from relatives or friends, in whatever form given, does not appear to have been sufficiently common to make it characteristic of the present generation of American business leaders." They add that "If any presumption can be said to have been established by the findings, therefore, it is that ability (whether innate or acquired), rather than environmental factors independent of ability, has been prepotent in

* EUGENICS REVIEW, 1932, page 193.

determining the success of the business leaders in our sample."

The data, tabulated by modern Hollerith methods, were obtained by circularizing with a well-drawn-up questionnaire persons whose names were extracted from Poor's (1928) Register of Directors. From the total of 15,101 individuals addressed, replies were received from 8,749, or nearly 58 per cent. A business leader was defined as "a person occupying a position as major executive, partner, or sole owner in a business of such size as to be of more than local importance in its field." Most of the men studied were born about 1880. Geographically, they are now concentrated in the New England and North Atlantic states, and in the large cities.

Contrary to common supposition, present-day American business leaders are neither the sons of farmers nor of wage-earners but primarily of business men (56.7 per cent.). Only 12 per cent. of the respondents had fathers who were farmers, and only 10 per cent. had fathers who were manual labourers. The farming class is decreasing in productivity of business leaders because there are fewer farmers in the regions supplying most of the leaders. The difference is being made up, not by the sons of manual labourers but by the sons of business men. The authors believe that "it is entirely possible that by the middle of the century more than two-thirds of the successful business men in the United States will be recruited from the sons of business owners (large or small) and business executives (major or minor)." They stress, however, the point that a tendency toward caste or rigid stratification is not demonstrated; although the present business leaders have come primarily from the *business class* of the past, they are not the sons primarily of past *business leaders*—only to the extent of 25 per cent.

Despite the fact that labourers (unskilled, semi-skilled, skilled) constituted 45 per cent. of the total gainfully employed population in 1880, their representation among business leaders was only 10 per cent; and though the business and professional classes constituted only 10 per cent. of this population,

their contribution was 70 per cent. "Here is the outstanding disparity: 10 per cent. of the American population produces 70 per cent. of its business leaders."

Taussig and Joslyn verify, therefore, the conclusions of all other investigators in showing that the "proletariat" or unskilled and semi-skilled workers, though a substantial proportion of the population, contribute few leaders. The fact is clear; there can be room for argument only about the explanation.

NORMAN E. HIMES.

The Scottish Council for Research in Education: The Intelligence of Scottish Children: A National Survey of an Age-Group. London, University of London Press, 1933. Pp. x+160. Price 5s. net.

ON June 1st, 1932, over 87,000 Scottish school children, of the age group of 10½-11½ years, sat busily at work revealing their I.Q.'s to a waiting world. This book contains the story of the great enterprise involved; of how Professor James Drever conceived the idea, and he, and a lot of others worked out the detail; of how Professor Godfrey Thomson provided the test material, and a great crowd of teachers willingly and conscientiously co-operated to produce the results. The book tells, also, in the clearest possible manner, exactly what those results were, and what among them can be regarded as of importance. Of course, it was desirable that the Group Test should produce scores that could "be interpreted in terms of some internationally recognized measure of intelligence." Accordingly Dr. Shepherd Dawson suggested that a random selection of 1,000 Scottish children should be made from among those born in 1921, and that these should be tested individually by means of the Terman revision of the Binet-Simon Scale. This also was done, and by the aid of this device it became possible to express the Group Test Scores, with some reservations, in terms of mental age and intelligence quotients.

The details of the results must be studied